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(71) Applicant (for all designated States except US): **CYTOS BIOTECHNOLOGY AG** [CH/CH]; Wagistrasse 25, CH-8952 Schlieren (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BACHMANN, Martin, F.** [CH/CH]; Goldackerweg 8, CH-8472 Seuzach (CH). **CORNELIUS, Andreas** [DE/CH]; Gut Katzenssee 31, CH-8105 Regensdorf (CH). **MANOLOVA, Vania** [BG/CH]; Pestalozzistrasse 41, CH-8032 Zurich (CH). **MAURER, Patrik** [DE/CH]; Rychenbergstrasse 38, CH-8400 Winterthur (CH). **MEIJERINK, Edwin** [NL/CH]; Rebbergstrasse 50, CH-8049 Zurich (CH). **PROBA, Karl, G.** [DE/CH]; Tramstrasse 95, CH-8050 Zurich (CH). **SCHWARZ, Katrin** [DE/CH]; Alter Zürichweg 31, CH-8952 Schlieren (CH).

(74) Agent: **WICHMANN, Hendrik**; Isenbruck Bösl Hörschler Wichmann Huhn, Prinzregentenstr. 68, 81675 München (DE).

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(54) Title: PACKAGING OF IMMUNOSTIMULATORY OLIGONUCLEOTIDES INTO VIRUS-LIKE PARTICLES: METHOD OF PREPARATION AND USE

(57) Abstract: The invention relates to the finding that virus like particles (VLPs) can be loaded with immunostimulatory substances, in particular with DNA oligonucleotides containing non-methylated C and G (CpGs). Such CpG-VLPs are dramatically more immunogenic than their CpG-free counterparts and induce enhanced B and T cell responses. The immune response against antigens optionally coupled, fused or attached otherwise to the VLPs is similarly enhanced as the immune response against the VLP itself. In addition, the T cell responses against both the VLPs and antigens are especially directed to the Th1 type. Antigens attached to CpG-loaded VLPs may therefore be ideal vaccines for prophylactic or therapeutic vaccination against allergies, tumors and other self-molecules and chronic viral diseases.

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